

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of:
Advanced Methods to Target and Eliminate
Unlawful Robocalls

CG Docket No. 17-59

COMMENTS OF TELCORDIA TECHNOLOGIES, INC. D/B/A ICONECTIV

Telcordia Technologies, Inc.,¹ doing business as iconectiv (“Telcordia” or “iconectiv”), is pleased to submit these comments in response to the Federal Communications Commission’s (“FCC” or “Commission”) questions raised in its Notice of Proposed Rulemaking (NPRM) and Notice of Inquiry (NOI) on its proposed rules to target and eliminate unlawful robocalls in the above-referenced proceeding.² In its NPRM/NOI the Commission proposes rules to allow providers to – on their customers’ behalf – block illegal robocalls and seeks comment on objective criteria to identify “presumptively illegal” calls that can also be blocked. At the same time the Commission wants to protect consumers from provider-initiated blocking that harms rather than helps consumers. The Commission’s stated goal is to balance competing policy

¹ Since February 14, 2013, Telcordia, a wholly owned subsidiary of Ericsson, has been doing business as iconectiv.

² *In the Matter of Advanced Methods to Target and Eliminate Unlawful Robocalls*, Notice of Proposed Rulemaking (NPRM) and Notice of Inquiry (NOI), GC Docket No. 17-59, released March 23, 2017 (Robocall NPRM/NOI.)

considerations to achieve an “effective solution that maximizes consumer protection and network reliability.”³ iconectiv supports these goals.

BACKGROUND

iconectiv has been an authoritative partner of the communications industry for more than thirty years. A U.S. based company, iconectiv has been a major architect of the United States’ telecommunications system since it was formed at the divestiture of AT&T. We have first-hand knowledge of the intricacies and complexities of creating, operating and securing the country’s telecommunications infrastructure. Our core competencies include highly scalable industry database management, numbering services, third-party authentication and fraud prevention for the telecommunications industry.

iconectiv has been working together with industry leaders to develop technical solutions that will help mitigate unlawful robocalls and spoofing. We hold leadership positions across the industry including the ATIS Board of Directors and Executive Committee, the ATIS TOPS Council and Testbed Landscape Team (TLT), the SIP Forum Board of Directors, and the TIA Board of Directors. We also serve as the Editor of the ATIS/SIP Forum IP NNI Taskforce IP Routing Document and SHAKEN Governance Model and Certificate Management Procedures. In addition, we both lead and participate on key industry committees that address robocalls and spoofing.⁴

³ Id at para. 10.

⁴ iconectiv is a Member/Participant on the: ATIS PTSC- Packet Technologies and Systems Committee; ATIS NGIIF – Next Generation Interconnection Interoperability Forum; IETF- Participant and contributor to relevant IETF WGs (STIR, DISPATCH (Chair), SIPCORE, ACME).

As the Commission notes, the technical work in these standards bodies has made significant progress on Caller ID Authentication standards.⁵ One of the main focuses of the ATIS work has been the development of the SHAKEN framework and associated governance structure; the ongoing work continues to examine SHAKEN-related Best Practices, Attestation and Origination Identifiers, and the development of a framework for the display of verified Caller ID. In addition, work is underway to develop the technical requirements and message flows for the Policy Administrator (PA) and also to document the Best Practices for Certificate Authorities. But even if these standards receive wide adoption, there will still be some situations where legitimate calls could be blocked. We address some of those situations below.

DISCUSSION

Business Impacts

Not all Caller ID spoofing is done for fraudulent purposes. There are legitimate uses for spoofing, such as Doctors calling back patients from their personal cell phone but displaying the office number on the Caller ID or “call centers calling on behalf of a business displaying that business’ main customer number or a toll-free number for return calls instead of the number for the originating line used by the call center.”⁶ Common business practices such as multi-homing must receive additional assessment to ensure that calls made by these telecom constituencies are properly handled and not blocked simply because they are not authenticated.⁷

⁵ *Id* at para. 32

⁶ *Id* at para. 5

⁷ The issue of embedding Identity headers in SIP addresses must also be further analyzed as the use cases include Toll-free, FirstNet, DHS priority services like GETS. Today, the carrier vouches for TNs (telephone numbers) eligible to receive Priority Service under the Government emergency telecom rules. Work is underway in ATIS PTSC-IP-NNI to allow enterprise/agency calls to include a Resource Priority Header that is signed similar to the Caller ID.

Impact on International Calls

Determining the legitimate nature of international calls presents different considerations.⁸ Essentially, it is not particularly difficult to block international calls, but the challenge is to define what an international robocall is in order to legitimately block it. Currently, the process is manual and very difficult to trace back. The implementation of STIR/SHAKEN will allow for identifying the point-of-entry in the U.S. network for every call. Consequently, trace back can potentially occur more easily for each call. There are still signaling aggregators and unknown service providers that may be involved in the call connection, complicating the issue. If all countries implemented the SHAKEN/STIR protocol in a standard and trustworthy way, then all calls could be traced back to the point of origin. Standard implementation of the SHAKEN/STIR technique worldwide would dramatically mitigate the international robocall problem. In order to accomplish this, US operators terminating international traffic would need a reliable means to recognize the originating international carrier and trust how they make use of the SHAKEN certificate scheme. The implications of number portability on the carrier-TN relationship further complicates proper verification of the signed Caller ID.

In any case, until the standards are uniformly implemented across the world, legitimate international calls could be mistakenly blocked. Mistakenly blocking legitimate international calls vastly complicates the international settlements process⁹, as well as the smooth flow of international traffic between and among countries. As the SHAKEN/STIR standards are being gradually adopted by the international community, it may be appropriate for the FCC to work

⁸ <https://www.consumer.ftc.gov/articles/0381-how-does-robocall-work-infographic>,

⁹ It may be appropriate for the FCC to institute a “safe harbor” policy for internationally blocked calls, to protect the service providers from the liability exposure of inadvertently blocking legitimate calls.

with countries to encourage the uniform and trustworthy implementation of the authentication standards and to manage the blocking of suspected robocalls, ideally driving that upstream where feasible. On November 17, 2016, the FCC entered into a Memorandum of Understanding (MOU) with the Canadian Radio-Television and Telecommunications Commission (CRTC) which allows the two agencies to collaborate on matters related to robocalls and Caller ID spoofing.¹⁰ To encourage the wide adoption of the authentication standard internationally, the Commission may want to consider entering into Memorandums of Understanding with multiple countries similar to the one it entered into with Canada.

Issue of Unassigned Numbers

Lastly, the Commission proposes to allow provider-initiated blocking of calls from numbers that have been allocated to a provider but are not assigned to a subscriber at the time of the call. The question is raised whether the service providers are able to accurately and timely identify such unassigned numbers. Presently, that is a challenge if the Caller ID asserted was not assigned by the originating operator. The NOI further asks whether “the number portability database administered by the Number Portability Administration Center (NPAC) provides such information for a subset of numbers?”¹¹ Such information is available in the NPAC only for numbers that have been ported.¹² Consideration must be given to ported numbers subsequently deactivated and either returned to the number range holder or in the process of being returned. This is referred to as a snapback in industry parlance. Such numbers might no longer be in the

¹⁰ www.crtc.gc.ca/eng/internet/fcc.htm

¹¹ Id. At para. 22.

¹² NPAC is not a complete line-level database. NPAC is the exception database that has phone numbers that have been ported or pooled, and are presentably routable by Location Routing Number (LRN), not necessarily assigned in every case.

NPAC and their assigned/unassigned state would not be known. Furthermore, all pooled numbers are in the NPAC yet it is not known which ones are assigned unless they are also ported. Lastly, given significant intra-carrier use of the NPAC to effect network changes, the subset of unassigned numbers known to NPAC would seem very small, thus challenging the practicality of applying NPAC data for this purpose.

CONCLUSION

We commend the Commission for tackling the robocalling/anti-spoofing problem. We believe that the SHAKEN/STIR technology can significantly mitigate robocalling and unlawful spoofing with careful uniform implementation and concern for all industry constituencies. Specific applications including call centers and non-uniform international implementation of the authentication standards may require special attention to ensure that legitimate calls are completed and preferably not unanswered, service providers are protected, and that all industry constituencies benefit from the authenticated Caller ID ecosystem. Despite these complexities, we believe that implementation of the new authentication standards will help restore integrity to the telephone number and re-establish it as a trusted identity for consumers and businesses.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'CD', followed by a horizontal line.

Chris Drake
CTO of Telcordia Technologies, Inc. d/b/a iconectiv

Dated: July 3, 2017